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5/26/2000  
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Kie Y. Ahn et al.  
Title: BIPOLE TRANSISTORS WITH LOW-RESISTANCE EMITTER CONTACTS  
Docket No.: 303.466US1  
Filed: April 29, 1998  
Examiner: W. David Coleman  
Serial No.: 09/069,668  
Due Date: May 3, 2000  
Group Art Unit: 2823

Assistant Commissioner for Patents  
Washington, D.C. 20231

We are transmitting herewith the following attached items (as indicated with an "X"):

A return postcard.  
 An Amendment and Response (7 Pages).

If an additional fee is required due to changes to the claims, the fee has been calculated as follows:

CLAIMS AS AMENDED						
	(1) Claims Remaining After Amendment		(2) Highest Number Previously Paid For	(3) Present Extra	Rate	Fee
TOTAL CLAIMS	38	-	31	7	x 18 =	\$126.00
INDEPENDENT CLAIMS	11	-	8	3	x 78 =	\$234.00
[ ] MULTIPLE DEPENDENT CLAIMS PRESENTED						\$0.00
TOTAL						\$360.00

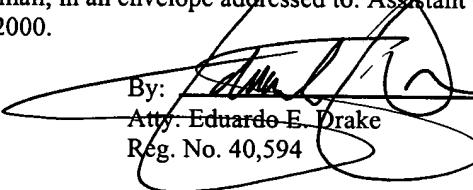
**Please charge the required fee of \$360.00 to Deposit Account No. 19-0743.**

**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this Transmittal Letter and the paper, as described above, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on this 3rd day of May, 2000.

**SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.**  
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**Customer Number 21186**

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By:   
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**MAY 15 2000**

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S/N 09/069,668

PATENT

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Applicant: Kie Y. Ahn et al.

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Title: BIPOLEAR TRANSISTORS WITH LOW-RESISTANCE EMITTER  
CONTACTS



**AMENDMENT AND RESPONSE**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Applicant has reviewed the Office Action mailed February 3, 2000. Please amend the application as follows:

**IN THE CLAIMS**

Please amend claims 1, 12, 18, 20, 23, 24, and 28 as follows:

1. (Amended) A method of making an emitter contact for an emitter region of a bipolar transistor, the method comprising:

forming a polysilicon structure [on] over an emitter region position of a semiconductive substrate, the substrate having a surface at the emitter region position; and substituting metal for at least a portion of the polysilicon structure to produce a metal emitter contact entirely above the surface of the substrate at the emitter region position.

12. (Amended) A method of making an emitter contact for a bipolar transistor, the method comprising:

forming a polysilicon structure on [a layer] an active region of the transistor, the polysilicon structure including:  
a diffusion barrier layer on the [layer] active region; and  
a polysilicon layer on the diffusion barrier layer; and  
substituting metal for at least a portion of the polysilicon layer.

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18. (Amended) A method of making an emitter contact for a bipolar transistor, the method comprising:

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02 FC:102 234.00 CH